Claims

1. Longitudinal implant and connecting device wherein said longitudinal implant is fastened to bones on either side of a damaged area through that connecting device, said implant is comprised of a filament or fiber composite material and said connecting device is made of a material harder than said longitudinal implant.

2. Connecting device according to claim 1, wherein the longitudinal implant is made of a carbon filament composite material.

3. Connecting device according to claim 1 or 2, wherein the filaments are encapsulated in a polymer matrix.

4. Connecting device according to claim 3, wherein the filaments are encapsulated in PEEK or PEKEKK.

5. Connecting device according to any of claims 1 to 4, wherein the filaments are oriented.

6. Connecting device according to claim 1, wherein the implant being an elongated plate having a longitudinal slot extending along a substantial portion of its length.

7. Connecting device according to claim 6, wherein the connecting device comprising a pedicle screw having an upper section having a width greater than the width of said slot and exteriorly threaded portion extending outwardly from said section and extending through said slot.

8. Connecting device according to claim 7, wherein an interiorally threaded nut is received by the outer end of said threaded portion whereby said plate can be grasped between said upper section and said nut to tightly secure said plate by threading said upper section.

9. Connecting device according to claim 1, wherein said implant is a rod or a rail.

10. Connecting device according to claim 1, wherein said connecting device comprising a screw and a nut which are made of titanium.

11. Connecting device according to claim 1, wherein said implant is a rail (17) having a rectangular cross section.

12. Connecting device according to any one of claims 1 to 11, wherein the filaments are woven.